

AMENDMENTS TO THE CLAIMS:

1. (Currently amended): A method in a data processing system for managing traffic in a network data processing system, the method comprising:
monitoring the traffic for a plurality of network paths; and
responsive to a packet for a particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed, reducing an amount of bandwidth available to the particular network path using an action based on a transmission protocol used by the particular network path, wherein the action used varies for different transmission protocols.
2. (Previously presented): The method of claim 1, wherein the traffic is monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.
3. (Previously presented): The method of claim 1, wherein the action comprises:
reducing a congestion window size by multiplying the amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the particular network path to reduce the amount of bandwidth available based on a fair share for the particular network path.
4. (Previously presented): The method of claim 3, wherein the congestion window size is reduced as follows:
$$CW = \max(\text{MinW}, \min(CW * F, \text{MaxW}))$$
wherein CW is the congestion window size, MinW is a minimum congestion window size for the particular network path, MaxW is a maximum congestion window size for the particular network path, and F is the dynamic variable used to adjust the congestion window size for the particular network path.
5. (Previously presented): The method of claim 1, wherein the action comprises:
setting a quality of service for packets sent using the particular network path.

6. (Previously presented): The method of claim 1, wherein the action comprises: dropping the packet.
7. (Currently amended): A method in a data processing system for managing traffic in a network data processing system, the method comprising:
monitoring aggregate traffic for each of a plurality of network paths; and
responsive to the aggregate traffic for a selected network path exceeding a threshold, reducing the aggregate traffic for the selected network path using an action based on a transmission protocol used by the selected network path, wherein the action varies for different transmission protocols.
8. (Previously presented): The method of claim 7, wherein the aggregate traffic comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.
9. (Previously presented): The method of claim 7, wherein the action comprises:
reducing a congestion window size by multiplying an amount of aggregate traffic by a dynamic variable that is adjusted using changing requirements of the selected network path to reduce the aggregate traffic for the selected network path.
10. (Previously presented): The method of claim 7, wherein the action comprises:
reducing a sending size for data packets.
11. (Previously presented): The method of claim 7, wherein the action comprises:
changing a quality of service for data packets for the selected network path.
12. (Original): The method of claim 7, wherein the threshold takes into account a fair share of bandwidth available for the plurality of network paths.
13. (Currently amended): A data processing system comprising:
a bus system;
a communications unit connected to the bus, wherein data is sent and received using the

- communications unit;
- a memory connected to the bus system, wherein a set of instructions are located in the memory; and
- a processor unit connected to the bus system, wherein the processor unit executes the set of instructions to monitor traffic for a plurality of network paths; and reduce an amount of bandwidth available to a particular network path using an action based on a transmission protocol used by the particular network path in response to a packet for the particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed, wherein the action varies for different transmission protocols.
14. (Previously presented): The data processing system of claim 13, wherein the bus system comprises a primary bus and a secondary bus.
15. (Previously presented): The data processing system of claim 13, wherein the processor unit comprises a single processor.
16. (Previously presented): The data processing system of claim 13, wherein the processor unit comprises a plurality of processors.
17. (Original): The data processing system claim 13, wherein the communications unit is an Ethernet adapter.
18. (Currently amended): A data processing system comprising:
- a bus system;
- a communications unit connected to the bus, wherein data is sent and received using the communications unit;
- a memory connected to the bus system, wherein a set of instructions are located in the memory; and
- a processor unit connected to the bus system, wherein the processor unit executes the set of instructions to monitor aggregate traffic for each of a plurality of network paths; and reduce the aggregate traffic for a selected network path using an action based on a transmission protocol

used by the selected network path in response to the aggregate traffic for the selected network path exceeding a threshold, wherein the action varies for different transmission protocols.

19. (Previously presented): The data processing system of claim 18, wherein the bus system comprises a primary bus and a secondary bus.

20. (Previously presented): The data processing system of claim 18, wherein the processor unit comprises a single processor.

21. (Previously presented): The data processing system of claim 18, wherein the processor unit comprises a plurality of processors.

22. (Original): The data processing system claim 18, wherein the communications unit is an Ethernet adapter.

23. (Currently amended): A data processing system for managing traffic in a network data processing system, the data processing system comprising:

means for monitoring the traffic for a plurality of network paths; and

means for reducing, responsive to a packet for a particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed, an amount of bandwidth available to the particular network path using an action based on a transmission protocol used by the particular network path, wherein the action varies for different transmission protocols.

24. (Previously presented): The data processing system of claim 23, wherein the traffic is monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

25. (Previously presented): The data processing system of claim 23, wherein the action comprises:

reducing a congestion window size by multiplying the amount of bandwidth available by

a dynamic variable that is adjusted using changing requirements of the particular network path to reduce the amount of bandwidth available based on a fair share for the particular network path.

26. (Previously presented): The data processing system of claim 25, wherein the congestion window size is reduced as follows:

$$CW = \max(\text{MinW}, \min(CW * F, \text{MaxW}))$$

wherein CW is the congestion window size, MinW is a minimum congestion window size for the particular network path, MaxW is a maximum congestion window size for the particular network path, and F is the dynamic variable used to adjust the particular network path.

27. (Previously presented): The data processing system of claim 23, wherein the action comprises:

means for setting a quality of service for packets sent using the particular network path.

28. (Previously presented): The data processing system of claim 23, wherein the action comprises:

means for dropping the packet.

29. (Currently amended): A data processing system for managing traffic in a network data processing system, the data processing system comprising:

means for monitoring aggregate traffic for each of a plurality of network paths; and

means for reducing, responsive to the aggregate traffic for a selected network path exceeding a threshold, the aggregate traffic for the selected network path using an action based on a transmission protocol used by the selected network path, wherein the action varies for different transmission protocols.

30. (Previously presented): The data processing system of claim 29, wherein the aggregate traffic comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

31. (Previously presented): The data processing system of claim 29, wherein the action comprises:

reducing a congestion window size by multiplying an amount of aggregate traffic by a dynamic variable that is adjusted using changing requirements of the selected network path to reduce the aggregate traffic for the selected network path.

32. (Previously presented): The data processing system of claim 29, wherein the action comprises:

means for reducing a sending size for data packets.

33. (Previously presented): The data processing system of claim 29, wherein the action comprises changing a quality of service for data packets for the selected network path.

34. (Original): The data processing system of claim 29, wherein the threshold takes into account a fair share of bandwidth available for the plurality of network paths.

35. (Currently amended): A computer program product for managing traffic in a network data processing system, the computer program product comprising:

a computer readable medium having computer usable program code embodied therein, the computer readable medium comprising:

computer usable program code configured to monitor the traffic for a plurality of network paths;

computer usable program code configured to reduce an amount of bandwidth available to a particular network path using an action based on a transmission protocol used by the particular network path in response to a packet for the particular network path within the plurality of network paths causing the traffic for the particular network path to exceed a level of traffic allowed, wherein the action varies for different transmission protocols.

36. (Previously presented): The computer program product as recited in claim 35, wherein the traffic is monitored using at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

37. (Previously presented): The computer program product as recited in claim 35, wherein the action comprises:

reducing a congestion window size by multiplying an amount of bandwidth available by a dynamic variable that is adjusted using changing requirements of the particular network path to reduce the amount of bandwidth available based on a fair share for the particular network path.

38. (Previously presented): The computer program product as recited in claim 37, wherein the congestion window size is reduced as follows:

$$CW = \max(\text{MinW}, \min(CW * F, \text{MaxW}))$$

wherein CW is the congestion window size, MinW is a minimum congestion window size for the particular network path, MaxW is a maximum congestion window size for the particular network path, and F is the dynamic variable used to adjust the particular network path.

39. (Previously presented): The computer program product as recited in claim 35, wherein the action comprises:

setting a quality of service for packets sent using the particular network path.

40. (Previously presented): The computer program product as recited in claim 35, wherein the action comprises:

dropping the packet.

41. (Currently amended): A computer program product for managing traffic in a network data processing system, the computer program product comprising:

a computer readable medium having computer usable program code embodied therein, the computer readable medium comprising:

computer usable program code configured to monitor aggregate traffic for each of a plurality of network paths; and

computer readable program code configured to reduce the aggregate traffic for a selected network path using an action based on a transmission protocol used by the selected network path in response to the aggregate traffic for the selected network path exceeding a threshold, wherein the action varies for different transmission protocols.

42. (Previously presented): The computer program product as recited in claim 41, wherein the aggregate traffic comprises at least one of a data transfer rate, peak data transfer rate, burst size, and maximum packet size.

43. (Previously presented): The computer program product as recited in claim 41, wherein the action comprises:

reducing a congestion window size by multiplying an amount of aggregate traffic by a dynamic variable that is adjusted using changing requirements of the selected network path to reduce the aggregate traffic for the selected network path.

44. (Previously presented): The computer program product of claim 41, wherein the action comprises:

reducing a sending size for data packets.

45. (Previously presented): The computer program product of claim 41, wherein the action comprises:

changing a quality of service for data packets for the selected network path.

46. (Original): The computer program product of claim 41, wherein the threshold takes into account a fair share of bandwidth available for the plurality of network paths.